

# BenQ DSC Sales Kit- S21

DSC BM Team  
2010.7.21

**BenQ**

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# Agenda

- Outlook
- Why S21
- Product Concept
- Selling Point & Key Feature
- Product Brief
- Product Comparison
- Spec Table





# S21 Outlook

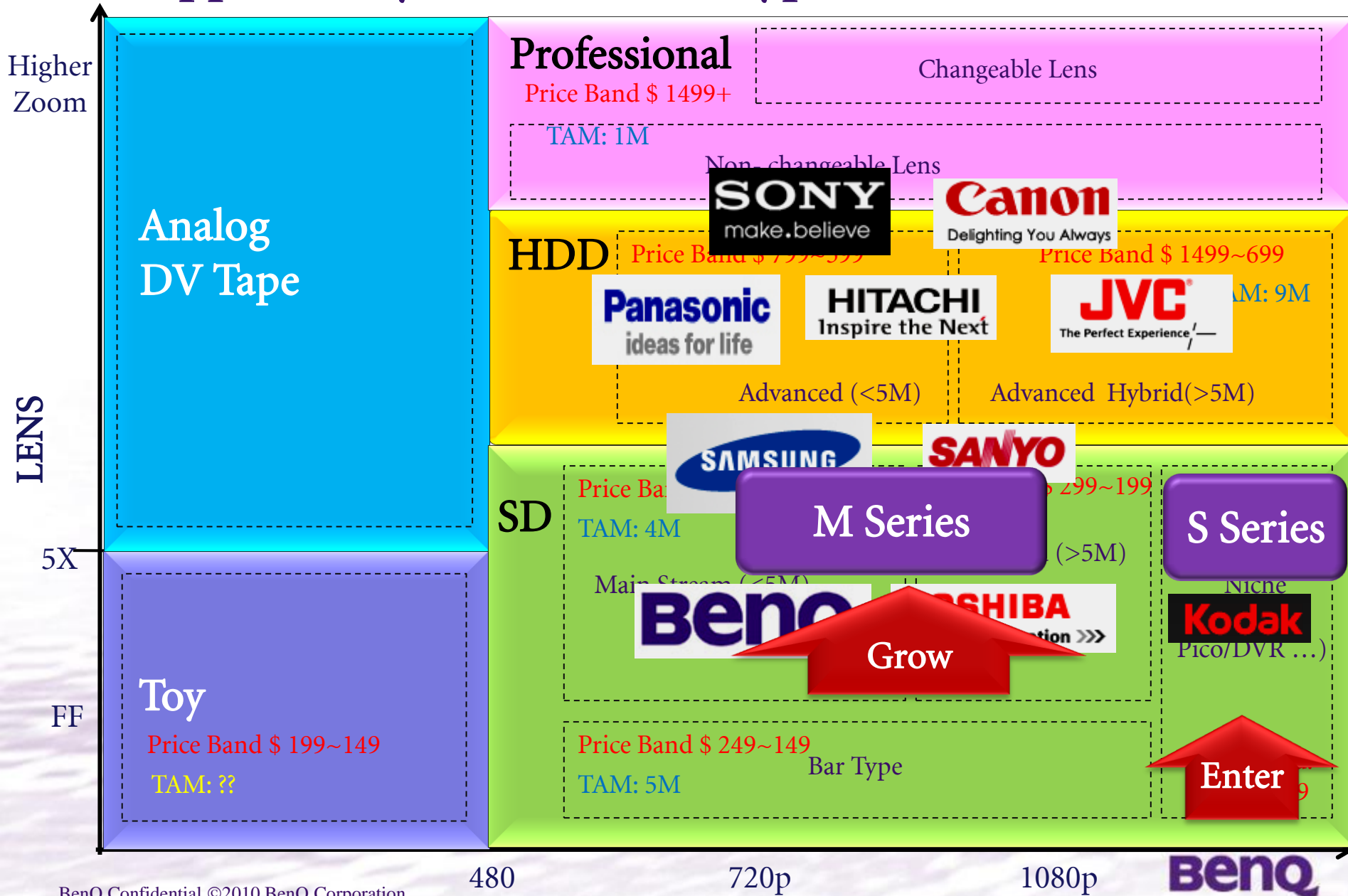


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# New Opportunity: Flank on SD Type



# BenQ DV Road Map

Price: USD

Firm Project

New Project

TBD

299

M31  
10M 10X Wide 3.5"  
Touch + FHD  
MP: September



M32  
14M 10X Wide 3.5"  
Touch + FHD

Hi Zoom  
DV

249  
H

M1  
10M 5X Wide 3.0"  
Touch + FHD  
MP



S11  
5M FF Wide 3.5"  
Touch + FHD + Pico  
MP: September



M11  
10M 5X Wide 3.0"  
Touch + FHD  
MP: August



M12 :  
5X/14M

M14  
14M 5X Wide 3.0"  
Touch + FHD +  
**3D**

199

M21  
5M 5X Wide 3.0"  
Touch + FHD  
MP



M22  
5M 5X Wide 3.0"  
Touch + FHD  
MP: July



M24 :  
5M/8X

179

S21  
5M FF 3.0"  
Touch FHD  
MP : 7/E



M23  
5M 5X Wide 3.0"  
Touch + **HD**



S12 : 5M/FF  
Bar Type+  
行車紀錄器+  
HDR CMOS 高感光

10 Q1

10 Q3

10 Q4



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# Selling Point & Key Feature

## Smart Recording

- Face Detection
- Touch Exposure
- Back-Light Mode
- Night Mode
- Motion Detection
- Capturing Still Image From Movie

## Easy of USE

- Pocket size & Glossy design
- 3.0" 16:9 Touch Panel
- Flexible battery power ●
- Dual SD card slots ●



## Image Quality

- 1080p Full HD recording
- 16M Still Picture (Real 5M)

## Funny & Enjoyment

- Night Vision ●

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## Funny & Enjoyment

- Night Vision •

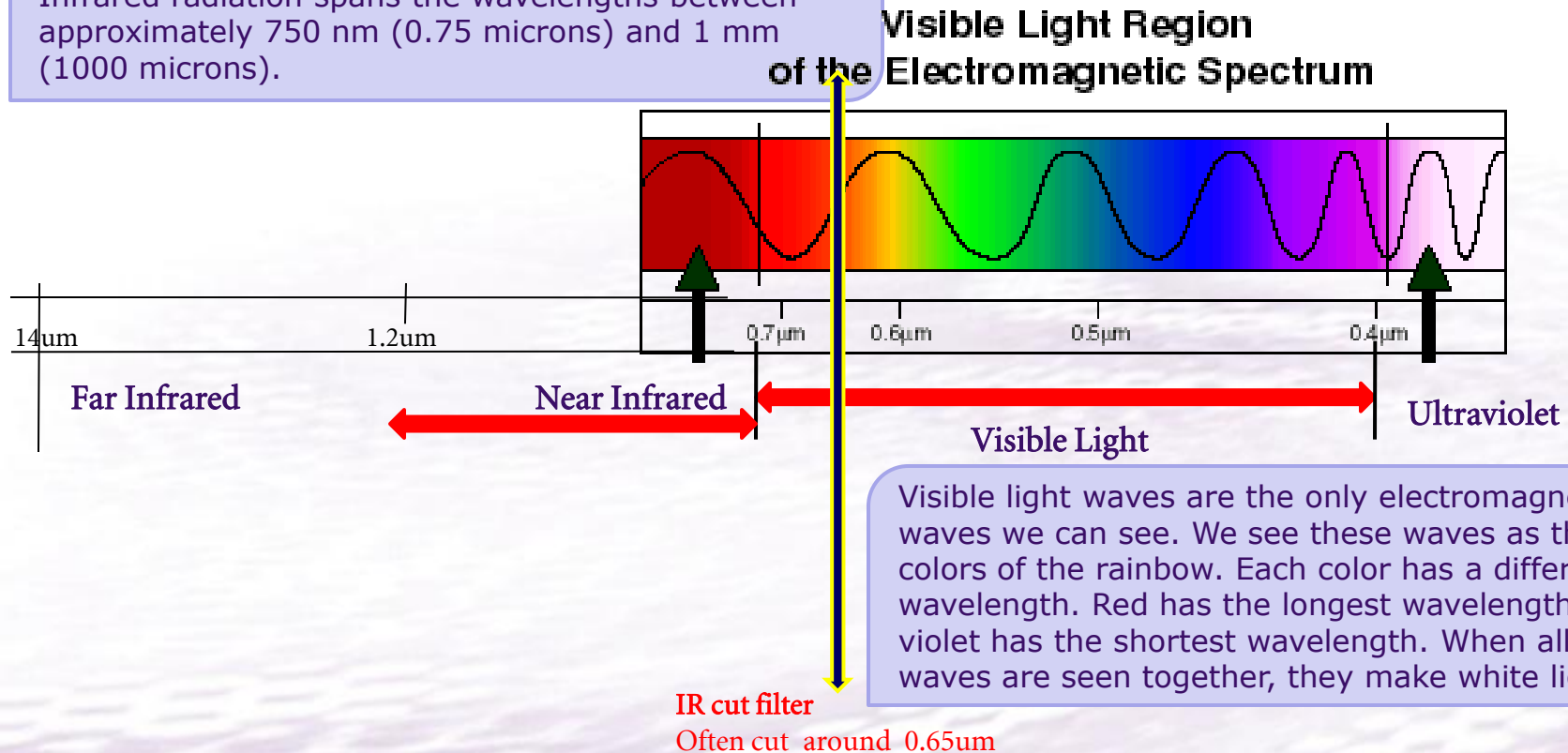


# Night Vision ●

- What is Infrared?
- What is S21 Infrared Night Vision?
- Why the frame is monochromatic?
- Why S21 frame is monochromatic (black and white)?
- When do you need S21 infrared Night Vision?

# Night Vision -What is Infrared?

Infrared having a wavelength longer than visible light and shorter than microwave radiation. Infrared radiation spans the wavelengths between approximately 750 nm (0.75 microns) and 1 mm (1000 microns).



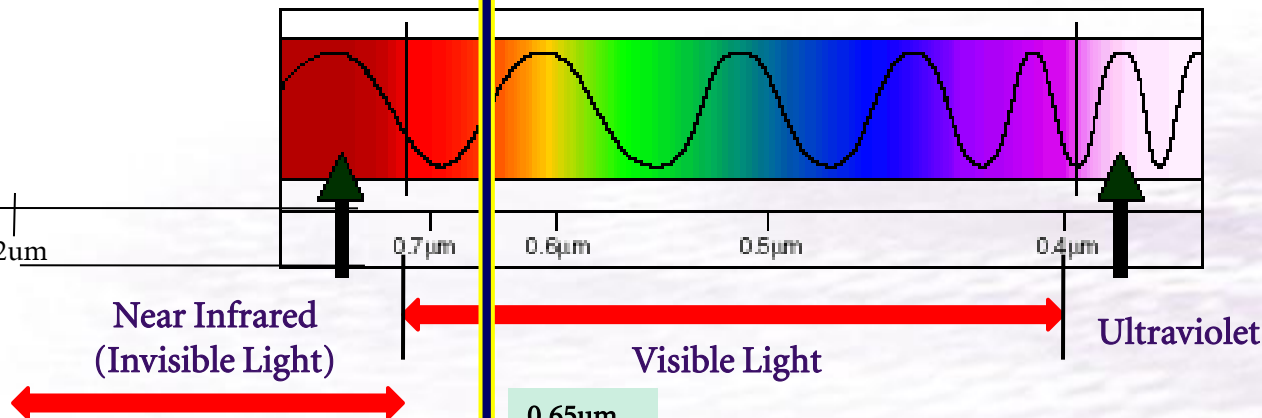
Almost all DSC/DV uses “IR cut filter” to block infrared light , the purpose is to produce true color images. (Infrared cut, visible light pass)

# Night Vision

Funny & Enjoyment

-What is S21 Infrared Night Vision?

Visible Light Region  
of the Electromagnetic Spectrum



Infrared LED Light

S21 adjust the range of IR cut filter from 0.65  $\mu\text{m}$  to 0.94  $\mu\text{m}$  & add Infrared LED Light to let Infrared pass.

IR cut filter

Adjust from 0.65  $\mu\text{m}$  to 0.94  $\mu\text{m}$

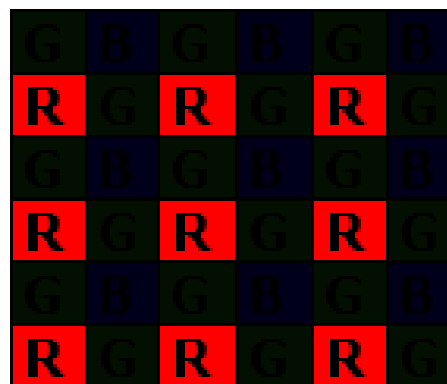
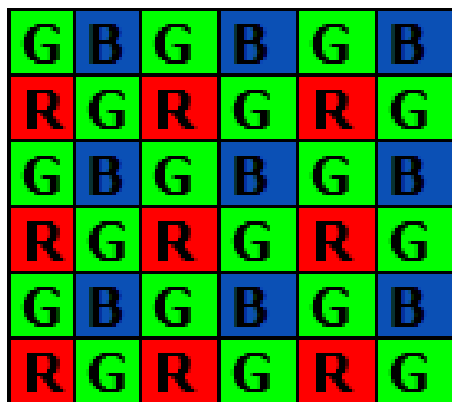
IR cut filter

Often cut around 0.65  $\mu\text{m}$



— why the frame is monochromatic?

S21 adjust the range of IR cut filter from 0.65um to 0.94 um & add Infrared LED Light to let Infrared pass.



CCD/CMOS

With sufficient light, we can see R/G/B with completed colors.

In the dark or with weak light, when Infrared LED Light is on,  
→ react to the colors green/blue will be weak, but only remain red.  
→ means when Night vision is on (turn on Infrared LED Light),  
the color of the frame is monochromatic,  
S21 made Auto White Balance adjustment to make it “black and white”.

# Night Vision

Funny & Enjoyment

— why S21 frame is monochromatic (black and white)?



This type is commonly used for war reporting, tinting the picture green. The color green is chosen because the human eye is most sensitive and able to discern the most shades in green. It also allows the eye to re-adjust more quickly than with other colors if the goggles are removed.

We adjust S21 to black and white for the green is not comfortable (kind of weird) for consumer use!

DV of Other competitor (ex: Sony) - green



BenQ S21- black and white



Some Panasonic/JVC make the frame of night vision “colorful” by extending shutter time, but means the frame rate will be reduced (ex: from 30 fps to 18 fps or less); then the video will not be fluent and be lagged!

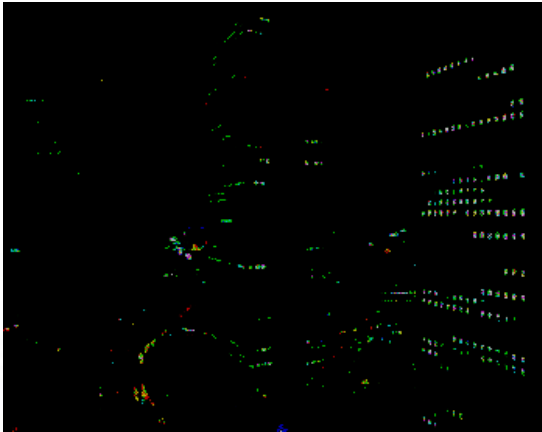
**BenQ**

# Night Vision

Funny & Enjoyment

— When do you need S21infrared Night Vision? (scenario 1)

Without night vision



With night vision



Ever tried to film a memorable scene or get a photo of a special moment, but ended up with a shadowy muddle because there simply wasn't enough light?

With the S21 night vision, you can capture any scene, any moment—in any light.



## – When do you need S21infrared Night Vision? ( scenario 2)

Without night vision



With night vision



When you plan to have nature trip to visit animals in the night(ex: deer, penguin, dolphin, etc...), with S21 night vision, you will not disturb them.

S21 night vision- good tool for you to observe/visit animals in the night!

# Selling Point & Key Feature

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- Pocket size & Glossy design
- 3.0" 16:9 Touch Panel
- Flexible battery power •
- Dual SD card slots •
- Slide & Rotate



## Image Quality

- 1080p Full HD recording
- 16M Still Picture (Real 5M)

## Funny & Enjoyment

- Night Vision •

# Pocket size & Glossy design



S21 outlook designed with high gloss coating



## Pocket Size

- LWH: 50.3 X 112 X 59.5 mm
- Weight: 225 g (without battery & SD card)



S21 with Pocket Size and glossy design, take it to record your life everywhere!



# 3" touch 16:9 touch panel

Easy Of Use

3" LCD touch



16:9 video performance:

- No compromised on definition
- No Distortion



16:9

4:3

16:9 LCD gives you true to life images that match 100% dot to dot your content

# Slide & Rotate



Slide right or left to review the previous file under the playback Mode.

Easily operate S21 by touch to review photo taken.



Rotate the image by 90°

# Flexible battery power ●



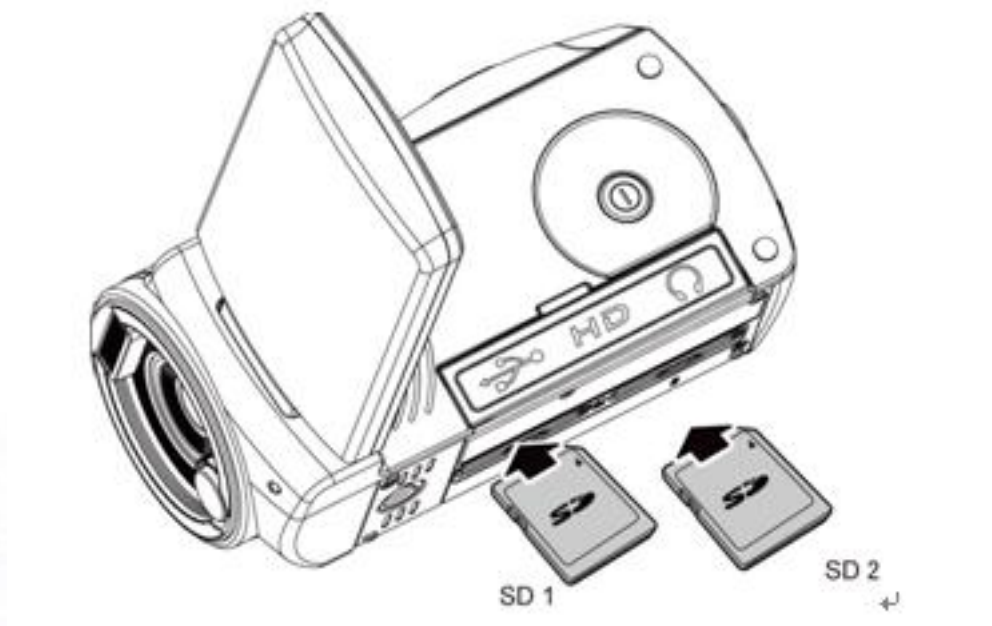
In addition to a rechargeable lithium ion battery, the S21 can be powered with ordinary AA disposable batteries. That means you can film and photograph as long you want even when you're outdoors or otherwise away from an electrical outlet.

\* Night vision feature not available when devices is powered using AA batteries.

With S21 Flexible battery power,  
you will no longer worry battery out of power when you are outdoors!



# Dual SD card slots ●



For extra storage capacity and added flexibility, the S21 includes not just one but two SD card slots. If one SD card is full, no problem. Just insert another in the second slot, to double the capacity and double your fun.

Put SD card SD1/SD2 in S21 together, when SD1 is full, S21 will keep recording with SD2 automatically.

Double capacity, double fun/convenient when recording during traveling!



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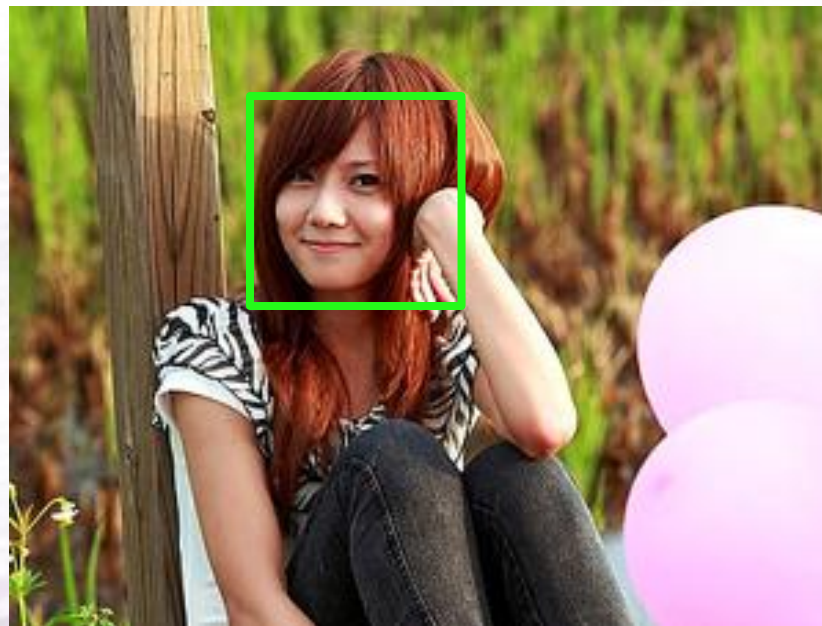
## Funny & Enjoyment

- Night Vision •

# Face Detection



Use the Face Detection function to detect faces in a scene automatically during a photo shoot/recording.



Getting the best exposure for human face when movie recording

# Capturing Still Image From Movie

Select the video clip, and press the shutter button at an interested frame.

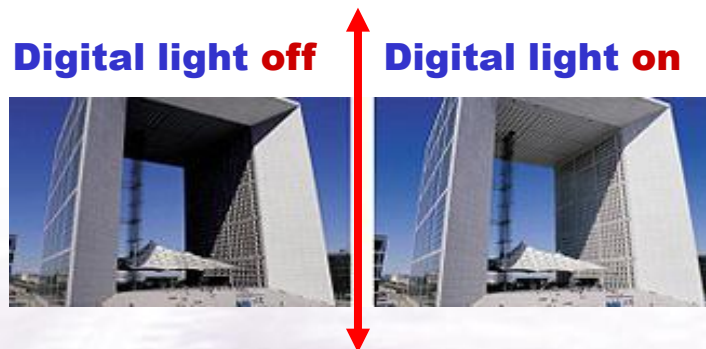


You can capture every unforgettable picture from motion movie.

# Backlight, Night Mode

## Backlight Mode

Will do AE metering to make right exposure when the target is under the strong backlight



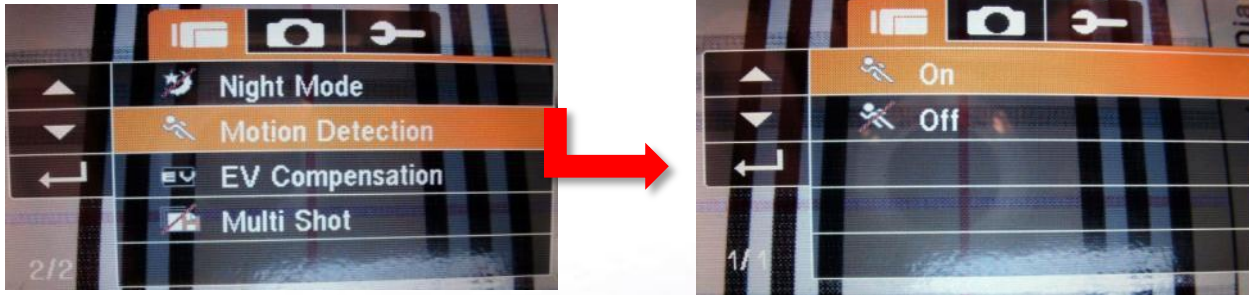
## Night Mode

Night scene was checked by luminance condition. M22 will do noise process and night scene metering to get good shot at night.





# Motion Detection



When Motion Detection is turned on, will detect the motion for Movie Clip recording without human intervention. When the AE variation is detected, the recording will start immediately.

Auto start when objects moving, for power saving and smart catching.



→ You can refer to 3”01 part of below video to see the introduction about Motion Detection.

<http://www.tudou.com/programs/view/ccq3-zkNVco/>

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# 1080p Full HD recording



Image Quality

Full HD refers to a native resolution of 1920x1080, the highest resolution HD currently available. When resolution reaches 1080P, you can see each image in its full magnificent detail, making your viewing experience even more absorbing.



VGA	640*480	4:3
SVGA	800*600	4:3
XGA	1024*768	4:3
WXGA	1280*768	15:9
SXGA	1280*1024	5:4
HD (720p)	1280*720	16:9
<b>FHD(1080p)</b>	<b>1920*1080</b>	<b>16:9</b>





100% by S21 1080p recording mode



100% by other 720p recording mode

With S21 high quality 1080p movie recording, you can easily have every best memory of the life!



# 16M Still Picture (Real pixel 5M)

Image Quality



Interpolation 16-megapixel (real pixel 5M) still images to give your photos a professional sheen!

5M( 2560 × 1920) → 8" × 10"

4M(2272 × 1704) → 7.5" × 10.25"





3M(2048 × 1536) → 5" × 7"

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# Comparison of competitor-

Brand	BenQ	BenQ	Ordar	Ordar
Model	DV-S21 	DV-M22 	DDV-5100HD PLUS 	HDV-Z12 
Price	\$ 149	\$ 199	\$199	\$219
Movie Format	1080p	1080p	1080p	1080p
LCD	3" touch	3" touch	3" (4:3) Touch	3"(4:3) Touch
Dimension	112 X50.3 X 59.5 mm	116x60x53 mm	111x 68 x 41mm	110x 65x 45mm
Weight	225g	310g	227g	220g
Sensor	5M	5M	5M CMOS	5M CMOS
Lens	FF	5x	FF	FF
Night vision	O	X	X	X
Flexible battery power	O	X	O	X
Dual SD card	O	X	O	X



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S21 Specifications	
<b>Sensor</b>	Aptina 5 Mega Pixels, 1/2.5 inch CMOS
<b>Zoom</b>	Digital: Up to 4X (Preview) / Up to 8X (Playback)
<b>Lens</b>	f = 7.0 mm
	F=3.25
	(f = 52mm, 35mm equivalent) for still image
<b>LCD</b>	Normal: 150cm ~ Infinity
	Macro: 16cm
	3" LCD 230k pixels
<b>Movie Mode</b>	FHD (1920x1080, @ 30 fps) / HD (1280x720, @ 30 fps) / WVGA (848x480, @ 60 fps) / Web (320x240, @ 30 fps)
<b>Image Resolution</b>	16M(4608x3456) / 8M (3200x2400) / 5M (2592x1944) / 3M (2048x1536)
<b>Shutter Speed</b>	Auto: 1/8000 ~ 1/2 sec.
	Night: 1/8000 ~ 2 sec.
<b>Feature</b>	Infrared Night Vision / Face Detection / Touch AE / Motion Detection / Night Mode / Backlight Compensation
<b>White Balance</b>	Auto / Daylight / Cloudy / Fluorescent / Tungsten
<b>Exposure</b>	-2.0 ~ +2.0 EV (0.5EV / step)
<b>ISO</b>	Auto
<b>Flash</b>	Range: 1 ~ 2m, Off, Auto, Fill-in
<b>Power Source</b>	1200mAh Rechargeable Li-ion Battery / AA*2
<b>Storage Type</b>	Built-in Approx. 9.9MB
	SD/SDHC compatible ( up to 32GB )
<b>File Format</b>	Still Image: JPEG (EXIF 2.2 compatible)
	Video: MOV (H.264);
<b>Dimensions / Weight</b>	50.3 X 112 X 59.5 mm
	225 g (without battery & SD card)
<b>Interface</b>	Digital output: USB 2.0 compatible
	Audio / Video output ( NTSC/PAL)
	HDMI
<b>Accessory</b>	Quick Start Guide / Hand Strap / Li-ion battery / HDMI cable
	AV cable / USB cable / Software CD ROM / Charger Set

An aerial, high-angle view of a checkered racing track, likely a Formula 1 circuit, set against a solid purple background. The track's pattern of alternating light and dark squares recedes into the distance, creating a strong sense of perspective and depth. The lighting is soft, highlighting the texture of the track surface.

**BenQ**

*Enjoyment Matters*

# •Appendix

- Language list
- LDI

# Language list

Model	Item	Ver.	English	French	Spanish	Portuguese	German	Italian	Russian	T. Chinese	S. Chinese	Japanese	Korean	Thai	Arabic	Turkey	#
DV S21	OSD		V	v	v	v	v	v	v	v	v	v	v	v	v	v	14
	Manual	In The CD-ROM	v	v	v	V	v	v		v	v				v	v	10
	Quick Guide	All	v	v	v	v	v	v		v	v				v	v	10



# LDI

Model	Single Layer QTY		Full Pallet QTY
		layer	
S21/air	60	6	360
S21/sea	60	8	480

An aerial, high-angle view of a checkered racing track, likely a Formula 1 circuit, set against a solid purple background. The track's pattern of alternating light and dark squares is visible, curving and receding into the distance.

**BenQ**

*Enjoyment Matters*